

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1-4 (Canceled)

5. (Original) A method for a user to newly couple to a network, the network for providing network services to users and comprising:

a centralized data center (CDC); and

a plurality of regional data centers (RDCs) operatively coupled to the CDC, each RDC being operatively coupled to a plurality of users by way of a communications network, each RDC maintaining for each associated user a user profile corresponding to the user, each user having a physical location and each RDC having a physical location,

the method comprising:

receiving a network address of the CDC;

contacting the CDC at the network address thereof;

requesting from the CDC a network address of an RDC based at least in part on the location of the user; and

receiving a network address of an RDC from the CDC, the location of the RDC of the received network address expected to be relatively close to the location of the user as compared with the location of all other RDCs, the RDC of the received network address maintaining the user profile for the user.

6. (Original) The method of claim 5 further comprising re-contacting the CDC at the network address thereof only if the RDC cannot be found by the user at the network address thereof.

7. (Original) A method for a user coupled to a network, the network for providing network services to users and comprising:

a centralized data center (CDC); and

a plurality of regional data centers (RDCs) operatively coupled to the CDC, each RDC being operatively coupled to a plurality of users by way of a communications network, each RDC maintaining for each associated user a user profile corresponding to the user,

the method comprising:

contacting the RDC;

requesting from the RDC a list of servers to use for services provided by the network for the user; and

receiving the list of servers,

wherein the list of servers is obtained from the user profile for the user and comprises a list of corresponding network addresses.

8. (Original) The method of claim 7 comprising, upon receiving the list of servers, employing such list to connect to appropriate servers for network services subscribed to by the user.

9. (Original) The method of claim 7 comprising, upon receiving the list of servers, displaying corresponding service icons on an associated user display.

10. (Original) The method of claim 9 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the method comprising, upon the user selecting a displayed icon:

contacting the RDC to obtain a corresponding service;

downloading the service from the associated LDC to an associated user machine; and

installing the service on the machine.

11. (Original) The method of claim 9 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains

for each associated user a user profile corresponding to the user, the method comprising,  
upon the user selecting a displayed icon:

contacting the RDC to determine whether a corresponding service as installed  
on an associated user machine needs to be updated; and

if so,

downloading an update for the service from the associated LDC; and  
installing the update on the machine.

12. (Original) The method of claim 9 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the method comprising, upon the user selecting a displayed icon:

contacting the RDC to determine whether the user is in fact subscribed to the service; and

if so, proceeding with a corresponding service.

13. (Original) The method of claim 7 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being

operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the method comprising, upon the user selecting a service corresponding to a server:

contacting the RDC to obtain the service;

downloading the service from the associated LDC to an associated user machine; and

installing the service on the machine.

14. (Original) The method of claim 7 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the method comprising, upon the user selecting a service corresponding to a server:

contacting the RDC to determine whether the service as installed on an associated user machine needs to be updated; and

if so,

downloading an update for the service from the associated LDC; and

installing the update on the machine.

15. (Original) The method of claim 7 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the method comprising, upon the user selecting a service corresponding to a server:

contacting the RDC to determine whether the user is in fact subscribed to the service; and

if so, proceeding with a corresponding service.

16. (Original) A method in combination with a network for providing network services to users, the network comprising:

a centralized data center (CDC);

a plurality of regional data centers (RDCs) operatively coupled to the CDC, each RDC being operatively coupled to a plurality of users by way of a communications network, each RDC maintaining for each associated user a user profile corresponding to the user,

the method for distributing a user-based product from a vendor, the product being available for purchase by each user and installation on an associated user machine, the method comprising:

receiving the product from the vendor at an RDC;  
pushing the product by the RDC to the CDC;  
propagating the product by the CDC to all of the RDCs;  
advertising the product by each RDC to at least some associated users,  
whereby a user interested in the advertised product contacts the vendor to purchase the  
product therefrom and receives an authorization from the vendor in response thereto;  
receiving the authorization from the user at the associated RDC;  
downloading the product by the associated RDC to the user for installation on  
the associated user machine; and  
updating the user profile for the user by the RDC to reflect the installation.

17. (Original) The method of claim 16 wherein the network comprises  
a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of  
local data centers (LDCs), each LDC being associated with a particular RDC and being  
operatively coupled to such particular RDC, each LDC being operatively coupled to a  
plurality of users by way of a broad-band communications network such that each user is  
associated with the particular RDC of the LDC and such that the particular RDC maintains  
for each associated user a user profile corresponding to the user, the method comprising:

receiving the product from the vendor at an LDC;  
pushing the product by the LDC to the associated RDC;  
pushing the product by the RDC to the CDC;  
propagating the product by the CDC to all of the RDCs;  
propagating the product by each RDC to all of the associated LDCs;

advertising the product by each LDC to at least some associated users,  
whereby a user interested in the advertised product contacts the vendor to purchase the  
product therefrom and receives an authorization from the vendor in response thereto;  
receiving the authorization from the user at the associated LDC;  
downloading the product by the associated LDC to the user for installation on  
the associated user machine;  
notifying the associated RDC by the LDC of the installation of the product on  
the associated user machine; and  
updating the user profile for the user by the RDC to reflect the installation.

18. (Original) A computer-readable medium having computer-executable instructions thereon for implementing a method for a user to newly couple to a network, the network for providing network services to users and comprising:  
a centralized data center (CDC); and  
a plurality of regional data centers (RDCs) operatively coupled to the CDC,  
each RDC being operatively coupled to a plurality of users by way of a communications network, each RDC maintaining for each associated user a user profile corresponding to the user, each user having a physical location and each RDC having a physical location,  
the instructions comprising modules including:  
a first module for receiving a network address of the CDC;  
a second module for contacting the CDC at the network address thereof;  
a third module for requesting from the CDC a network address of an RDC  
based at least in part on the location of the user; and



a fourth module for receiving a network address of an RDC from the CDC, the location of the RDC of the received network address expected to be relatively close to the location of the user as compared with the location of all other RDCs, the RDC of the received network address maintaining the user profile for the user.

19. (Original) The medium of claim 18 wherein the second module re-contacts the CDC at the network address thereof only if the RDC cannot be found by the user at the network address thereof.

20. (Original) A computer-executable medium having computer-readable instructions thereon for implementing a method for a user coupled to a network, the network for providing network services to users and comprising:

a centralized data center (CDC); and

a plurality of regional data centers (RDCs) operatively coupled to the CDC, each RDC being operatively coupled to a plurality of users by way of a communications network, each RDC maintaining for each associated user a user profile corresponding to the user,

the instructions comprising modules including:

a first module for contacting the RDC;

a second module for requesting from the RDC a list of servers to use for services provided by the network for the user; and

a third module for receiving the list of servers,

wherein the list of servers is obtained from the user profile for the user and comprises a list of corresponding network addresses.

21. (Original) The medium of claim 20 comprising a fourth module for, upon receiving the list of servers, employing such list to connect to appropriate servers for network services subscribed to by the user.

22. (Original) The medium of claim 20 comprising a fourth module for, upon receiving the list of servers, displaying corresponding service icons on an associated user display.

23. (Original) The medium of claim 22 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the medium comprising, upon the user selecting a displayed icon:

a fifth module for contacting the RDC to obtain a corresponding service;

a sixth module for downloading the service from the associated LDC to an associated user machine; and

a seventh module for installing the service on the machine.

24. (Original) The medium of claim 22 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the medium comprising, upon the user selecting a displayed icon:

a fifth module for contacting the RDC to determine whether a corresponding service as installed on an associated user machine needs to be updated; and

if so,

a sixth module for downloading an update for the service from the associated LDC; and

a seventh module for installing the update on the machine.

25. (Original) The medium of claim 22 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains

for each associated user a user profile corresponding to the user, the medium comprising,  
upon the user selecting a displayed icon:

a fifth module for contacting the RDC to determine whether the user is in fact  
subscribed to the service; and

if so, a sixth module for proceeding with a corresponding service.

26. (Original) The medium of claim 20 wherein the network  
comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a  
plurality of local data centers (LDCs), each LDC being associated with a particular RDC and  
being operatively coupled to such particular RDC, each LDC being operatively coupled to a  
plurality of users by way of a broad-band communications network such that each user is  
associated with the particular RDC of the LDC and such that the particular RDC maintains  
for each associated user a user profile corresponding to the user, the medium comprising,  
upon the user selecting a service corresponding to a server:

a fourth module for contacting the RDC to obtain the service;

a fifth module for downloading the service from the associated LDC to an  
associated user machine; and

a sixth module for installing the service on the machine.

27. (Original) The medium of claim 20 wherein the network  
comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a  
plurality of local data centers (LDCs), each LDC being associated with a particular RDC and  
being operatively coupled to such particular RDC, each LDC being operatively coupled to a

plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the medium comprising, upon the user selecting a service corresponding to a server:

a fourth module for contacting the RDC to determine whether the service as installed on an associated user machine needs to be updated; and

if so,

a fifth module for downloading an update for the service from the associated LDC; and

a sixth module for installing the update on the machine.

28. (Original) The medium of claim 20 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the medium comprising, upon the user selecting a service corresponding to a server:

a fourth module for contacting the RDC to determine whether the user is in fact subscribed to the service; and

if so, a fifth module for proceeding with a corresponding service.

29. (Original) A computer having computer-executable instructions thereon for implementing a method for a user to newly couple to a network, the network for providing network services to users and comprising:

a centralized data center (CDC); and

a plurality of regional data centers (RDCs) operatively coupled to the CDC, each RDC being operatively coupled to a plurality of users by way of a communications network, each RDC maintaining for each associated user a user profile corresponding to the user, each user having a physical location and each RDC having a physical location,

the instructions comprising modules including:

a first module receiving a network address of the CDC;

a second module contacting the CDC at the network address thereof;

a third module requesting from the CDC a network address of an RDC based at least in part on the location of the user; and

a fourth module receiving a network address of an RDC from the CDC, the location of the RDC of the received network address expected to be relatively close to the location of the user as compared with the location of all other RDCs, the RDC of the received network address maintaining the user profile for the user.

30. (Original) The computer of claim 29 wherein the second module re-contacts the CDC at the network address thereof only if the RDC cannot be found by the user at the network address thereof.

31. (Original) A computer having computer-readable instructions thereon for implementing a method for a user coupled to a network, the network for providing network services to users and comprising:

- a centralized data center (CDC); and
- a plurality of regional data centers (RDCs) operatively coupled to the CDC, each RDC being operatively coupled to a plurality of users by way of a communications network, each RDC maintaining for each associated user a user profile corresponding to the user,

the instructions comprising modules including:

- a first module contacting the RDC;
- a second module requesting from the RDC a list of servers to use for services provided by the network for the user; and
- a third module receiving the list of servers,

wherein the list of servers is obtained from the user profile for the user and comprises a list of corresponding network addresses.

32. (Original) The computer of claim 31 comprising a fourth module, upon receiving the list of servers, employing such list to connect to appropriate servers for network services subscribed to by the user.

33. (Original) The computer of claim 31 comprising a fourth module, upon receiving the list of servers, displaying corresponding service icons on an associated user display.

34. (Original) The computer of claim 33 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the computer comprising, upon the user selecting a displayed icon:

a fifth module contacting the RDC to obtain a corresponding service;

a sixth module downloading the service from the associated LDC to an associated user machine; and

a seventh module installing the service on the machine.

35. (Original) The computer of claim 33 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the computer comprising, upon the user selecting a displayed icon:



a fifth module contacting the RDC to determine whether a corresponding service as installed on an associated user machine needs to be updated; and

if so,

a sixth module downloading an update for the service from the associated LDC; and

a seventh module installing the update on the machine.

36. (Original) The computer of claim 33 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the computer comprising, upon the user selecting a displayed icon:

a fifth module contacting the RDC to determine whether the user is in fact subscribed to the service; and

if so, a sixth module proceeding with a corresponding service.

37. (Original) The computer of claim 31 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a

plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the computer comprising, upon the user selecting a service corresponding to a server:

a fourth module contacting the RDC to obtain the service;

a fifth module downloading the service from the associated LDC to an associated user machine; and

a sixth module installing the service on the machine.

38. (Original) The computer of claim 31 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the computer comprising, upon the user selecting a service corresponding to a server:

a fourth module contacting the RDC to determine whether the service as installed on an associated user machine needs to be updated; and

if so,

a fifth module downloading an update for the service from the associated LDC; and

a sixth module installing the update on the machine.

39. (Original) The computer of claim 31 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of users by way of a broad-band communications network such that each user is associated with the particular RDC of the LDC and such that the particular RDC maintains for each associated user a user profile corresponding to the user, the computer comprising, upon the user selecting a service corresponding to a server:

a fourth module contacting the RDC to determine whether the user is in fact subscribed to the service; and

if so, a fifth module proceeding with a corresponding service.

40. (Original) A method in combination with a network for implementing a network-based computing environment, the network comprising:

a centralized data center (CDC);

a plurality of regional data centers (RDCs) operatively coupled to the CDC, each RDC being operatively coupled to a plurality of clients by way of a communications network,

the method for an application to implement an action at a first network location, the application being at a second network location and coupled to an RDC thereat, the method comprising:

determining over the network what clients are available at the first location and coupled to an RDC thereat, each available client having capabilities;

determining over the network what capabilities each available client at the first location has;

selecting an available client at the first location having a capability required for the action to be implemented at the first location; and

issuing a command over the network to the selected client to perform at least a portion of the action, wherein the issued command is received over the network from the application by the selected client and the selected client performs at least a portion of the action in accordance with the received command.

41. (Original) The method of claim 40 wherein each client at the first location is coupled to the RDC thereat by way of a gateway having information on each client at the first location, and wherein determining what clients are available at the first location comprises obtaining the information on each client at the first location from the gateway.

42. (Original) The method of claim 41 wherein the gateway has information on what capabilities each available client at the first location has, and wherein determining what capabilities each available client at the first location has comprises allowing the application to obtain the information on the capabilities of each client at the first location from the gateway.

43. (Original) The method of claim 40 wherein issuing a command over the network comprises issuing a command to the selected client to input information from one of the application, another client on the network at one of the first location and a third location, and an external non-network source.

44. (Original) The method of claim 40 wherein issuing a command over the network comprises issuing a command to the selected client to output information to one of the application, another client on the network at one of the first location and a third location, and an external non-network destination.

45. (Original) The method of claim 40 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of clients by way of a communications network,

the method for an application to implement an action at a first network location, the application being at a second network location and coupled to one of an RDC and an LDC thereat, the method comprising:

determining over the network what clients are available at the first location and coupled to an LDC thereat, each available client having capabilities;

determining over the network what capabilities each available client at the first location has;

selecting an available client at the first location having a capability required for the action to be implemented at the first location; and

issuing a command over the network to the selected client to perform at least a portion of the action, wherein the issued command is received over the network from the application by the selected client and the selected client performs at least a portion of the action in accordance with the received command.

46. (Original) A method in combination with a network for implementing a network-based computing environment, the network comprising:

a centralized data center (CDC);

a plurality of regional data centers (RDCs) operatively coupled to the CDC, each RDC being operatively coupled to a plurality of clients by way of a communications network,

the method for implementing an action at a first network location by way of an application at a second network location and coupled to an RDC thereat, the method comprising:

allowing the application to determine over the network what clients are available at the first location and coupled to an RDC thereat, each available client having capabilities;

allowing the application to determine over the network what capabilities each available client at the first location has, the application selecting an available client at the first location having a capability required for the action to be implemented at the first location;

facilitating issuance of a command over the network from the application to the selected client to perform at least a portion of the action; and

facilitating reception of the issued command over the network from the application by the selected client, wherein the selected client performs at least a portion of the action in accordance with the received command.

47. (Original) The method of claim 46 wherein each client at the first location is coupled to the RDC thereat by way of a gateway having information on each client at the first location, and wherein allowing the application to determine over the network what clients are available at the first location comprises allowing the application to obtain the information on each client at the first location from the gateway.

48. (Original) The method of claim 47 wherein the gateway has information on what capabilities each available client at the first location has, and wherein allowing the application to determine over the network what capabilities each available client at the first location has comprises allowing the application to obtain the information on the capabilities of each client at the first location from the gateway.

49. (Original) The method of claim 46 wherein facilitating issuance of a command over the network comprises facilitating issuance of a command from the application to the selected client to input information from one of the application, another client on the network at one of the first location and a third location, and an external non-network source.

50. (Original) The method of claim 46 wherein facilitating issuance of a command over the network comprises facilitating issuance of a command from the application to the selected client to output information to one of the application, another client on the network at one of the first location and a third location, and an external non-network destination.

51. (Original) The method of claim 46 wherein the network comprises a plurality of regional data centers (RDCs) operatively coupled to the CDC, and a plurality of local data centers (LDCs), each LDC being associated with a particular RDC and being operatively coupled to such particular RDC, each LDC being operatively coupled to a plurality of clients by way of a communications network,

the method for implementing an action at a first network location by way of an application at a second network location and coupled to one of an RDC and an LDC thereat, the method comprising:

allowing the application to determine over the network what clients are available at the first location and coupled to an LDC thereat, each available client having capabilities;

allowing the application to determine over the network what capabilities each available client at the first location has, the application selecting an available client at the first location having a capability required for the action to be implemented at the first location;

facilitating issuance of a command over the network from the application to the selected client to perform at least a portion of the action; and



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facilitating reception of the issued command over the network from the application by the selected client, wherein the selected client performs at least a portion of the action in accordance with the received command.